SAFETY WEEK
JUNE 20–23

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Safety News

SPECIAL SUPPLEMENT

Why do we have a Safety department?

by Howard Dalpe, Facilities and Safety

Corporate safety at the Alberta Research Council, its purpose and objectives, could be described as a “loss control program”. That is, the business of safety is to prevent loss resulting from corporate operations that could cause:

- Injury, illness or death of employees
- Damage to equipment, materials or facilities
- Environmental contamination
- Public injury or illness including death

How does it work?

The risk management required to attain these safety objectives requires the contribution of all members of the corporation. Safety is everyone’s business and an integral part of daily operations.

Facilities and Safety is an administrative/service department providing a service in the same general manner as, for instance, Materiels Management, or Financial Services.

Due to the nature of its business, Safety is required to be proactive in providing services. The Facilities & Safety Department will help you determine what your needs are and then provide services to meet those requirements. However, if there is no input from the user department, in many cases the job does not get done.

Who is responsible?

Provincial and Federal health and safety law defines the minimum safety responsibilities of the work place. Research Council corporate safety is responsible for maintaining a program that meets or exceeds those requirements.

Individual Research Council departments are responsible for the safety of their operations.

The Safety Unit is responsible, with departmental cooperation, for providing service in a joint effort to establish and maintain the safety of Research Council operations.

What is done?

The Safety Unit manages the development and maintenance of the Corporate Loss Control Program.

Risk management programs and various policies and procedures are developed by the Safety Unit. Some examples are:

- Transportation of dangerous goods policy and procedures
- Radiation protection safety program
- Hazardous waste policy and procedures
- Pressure vessel and piping quality control program
- Workplace Hazardous Materials Information System program
- Emergency response program
- Environmental monitoring/assessment policy
- Industrial hygiene program development
- Evacuation procedures
- Code of practise and safe operating procedure developed jointly with department managers/supervisors
- Safety training program

The following is a partial list of Safety services that are provided by and/or accessed from the Safety Department.

Alberta Research Council Safety Function

General Safety
Don Murray

- Safety audits
- Safe work permit coordination
- Safe work proc.
- Employee safety orientation
- Accident/incident coordination
- Emergency response coordinator
- Evacuation procedures
- Safety Committees
- Professional liaison
- Safety Awards
- Training

Environmental Control
Hazardous Materials Management
Safety Legislation Compliance
Howard Dalpe

- Environmental monitoring
- Hazardous waste management
- Dangerous goods transportation
- WHMIS
- Laboratory /task ventilation
- Safe work protocols and policies
- Biohazard containment
- Industrial hygiene
- Hygiene consulting

Radiation Safety
Stuart Hunt

- Program development
- Radioisotope licences & permits
- X-ray & laser registration
- Radioisotope facility design & approval
- Radiation dosimetry
- Overexposure investigations
- Radiation exposure control assessments
- Radioactive waste management
- Environmental monitoring
- Safe work practices for manhandling personnel

Pressure Vessel & Piping Quality Control Program
Martin Martens

- Program development
- Inventory pressure vessels/systems
- Pressure vessels and piping design install. review & approval
- Pressure vessel & piping inspect. monit.
- Review/approve P.O.’s for pressure vessels
- Provide expert advice for install. and use of pressure vessels & piping systems
- Safe work practice for use of PV&PS
- Accident/Incident investigation

Occupational Health & Safety Training
Staff & Consultants

- Defensive Driving
- Fire Extinguisher Training
- Chemical Laboratory Safety
- Self-Contained Breathing Apparatus
- Radioisotope Handling and Radiation Safety Techniques for Research Laboratory
- Radiation Safety Seminar for Laboratory Personnel Using Open Sources of Radioactive Materials
- Radiation Protection Techniques for Users of Fixed and Portable Nuclear Process Control Devices
- Introduction to Alberta Research Council Health and Safety
- Supervisor’s Accident/ Incident Report
- H_2S Alive
- Pressure Vessel/Piping Quality Control
- Supervisor’s Accident Investigation Techniques
- WHMIS “Train the Trainer”

Drown-proof your family

Pool, diving, and swimming safety

As the weather becomes warmer, reports of accidental drownings become all too common. Drowning victims encompass all age groups – the toddler who fell into the family pool, the teenager who dove into a lake and struck an unseen rock, the adult who was pulled out to sea by a vicious undertow. Perhaps the saddest fact about each of these cases, is that the drowning accident *could* have been prevented. Learn these basic rules for drown-proofing your family, before an accident becomes a tragedy.

Pool safety

If you own a backyard pool, or live in an area where pools are common, enroll your children in swimming classes immediately. (Infants as young as a few months old can learn to swim their way to safety.) Invest in an approved safety cover and keep the pool covered whenever it is not in use. Fence in your pool to prevent curious youngsters from entering the pool area without your permission. *Never, ever,* allow toddlers or young children access to the pool without adult supervision. (Even if the pool has been drained, a young child can fall into the structure and injure himself/herself seriously.)

Diving safety

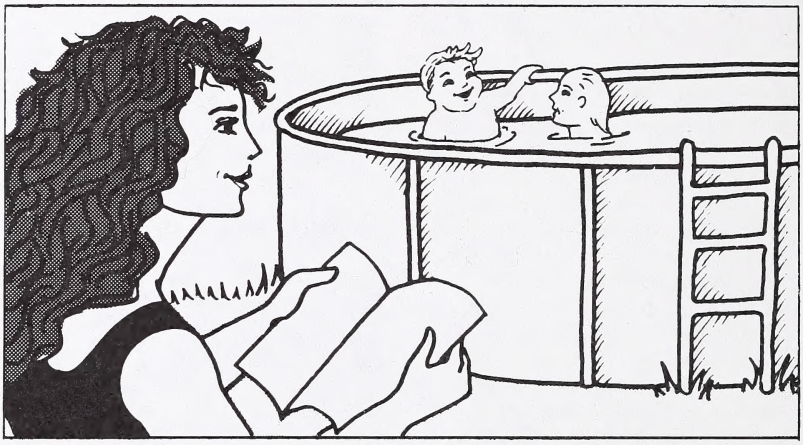
Many accidental drownings result from diving injuries. Diving into shallow water, or striking an unseen obstacle can lead to unconsciousness, spinal cord injury, and all too often, death. *Always* test water depth before diving, and if you are unable to see below the water's surface, *don't dive.* Even if you are sure your path is clear, keep your arms extended above your head when diving – your hands (not your head) will hit an unseen obstacle first.

Swimming safety

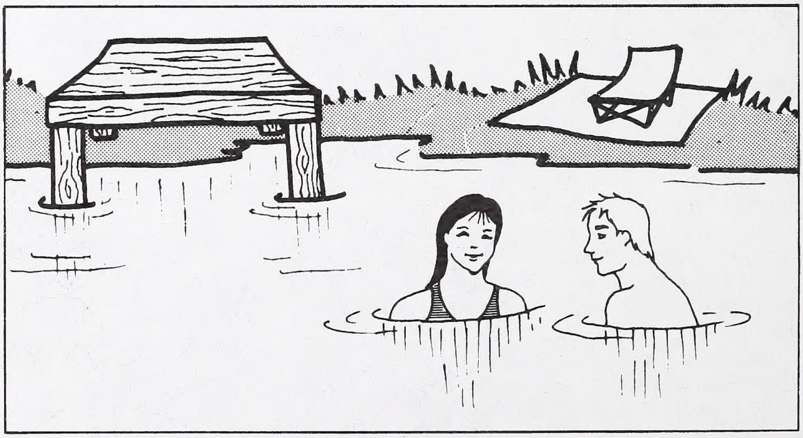
Whenever you swim (in a pool, lake, or ocean), always have a partner nearby. Observe warning signs – "No lifeguard on duty," "Dangerous undertow," etc. Never swim when you are tired, under the influence of alcohol, drugs, or medications, or when weather conditions are stormy. If you are not an experienced swimmer, stay in shallow water and use flotation devices. Never allow toddlers or young children to swim without adult supervision.

Additional tips

Certain water sports such as boating, water skiing, and surfing, pose special drowning dangers. If you are interested in taking up *any* water sport, learn how to swim beforehand. Know nautical rules and regulations before going on any boat. Always keep approved flotation devices readily available. Check your equipment before engaging in any water sport to be sure it is in good operating condition. Finally, use your common sense and avoid unnecessary risks. Drowning accidents are tragedies that can, in most cases, be prevented.



Never, ever, allow toddlers or young children access to the pool without adult supervision.



Whenever you swim – in a pool, lake, or ocean – always have a partner nearby.

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Who should I call?

by Alan Sanger, Facilities and Safety

We all need information to perform our tasks and especially to perform them safely. Knowing how and where we can get that information is the key to planning safe and effective operations.

"What if - -?"

A component of both planning and daily work is asking questions. Consider the components of a planned task. Question the way you are doing things, and think if there is a better way. Find out the information already available.

Who knows this safety information? Your boss should know a lot – ask! Your colleagues know even more – ask them! The Alberta Research Council has some of the best and most experienced professional and technical staff available in its fields of expertise; they know how to do things safely and well. Curiosity may have killed the cat, but it has saved many workers from serious injuries.

If your colleagues don't have the information on safety procedures you need, you may have identified a problem. Contact your Safety Committee, call the Safety group; raise the issue so it does not become a real problem.

"I have a problem!"

If you have a problem, consult the experts. If you know who they are, call them. If you need to know who to call, your supervisor is a good place to start. Safety has retained the services of experts to complement the expertise available in house, from your boss and your colleagues.

When you have the problem solved, let your colleagues and Safety know – you will have gained valuable expertise!

"Uh, oh!"

If, despite your very best efforts, an incident or near miss occurs, let's find out why. The incident report form is to be completed by your immediate supervisor. It is *not* a fault-finding exercise, but a fact-finding process. We analyze what happened to find out how to prevent a repetition of the incident. By reporting the incident we learn what might happen to other people too, and can take action to prevent the cause in other areas. So, if there is an incident or a "near miss", report it!

"Get help!"

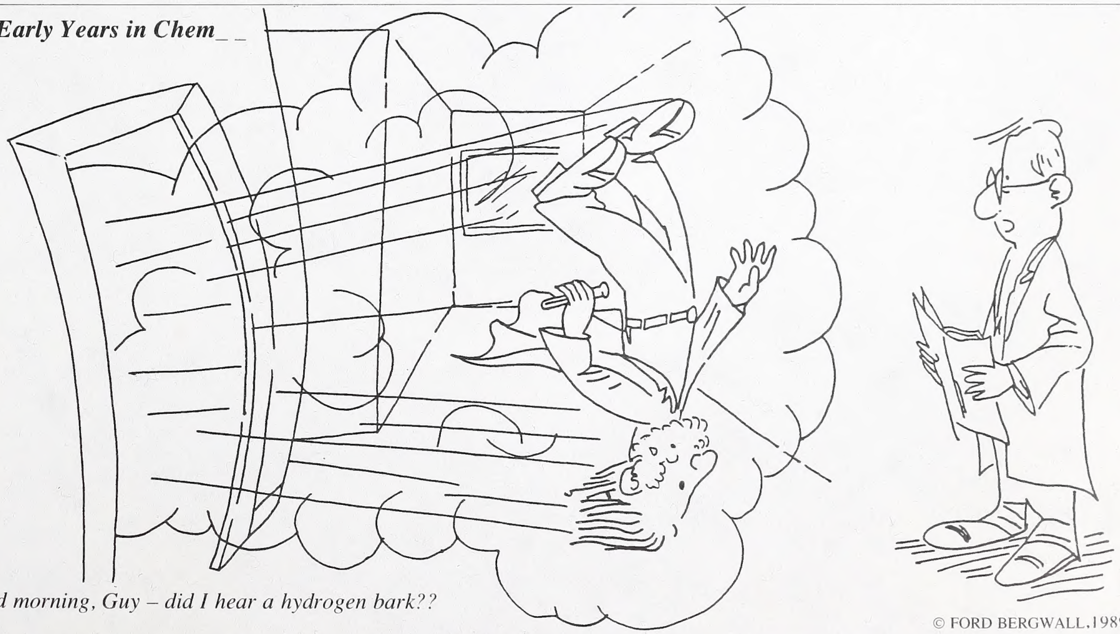
Fires, accidents, or exposures to health hazards are normally preventable. Nevertheless, people do make errors, equipment does fail, and happenstance can cause a lot of grief. Emergency response teams *have* been set up. Advanced first-aiders *are* trained and available. Staff with Cardio Pulmonary Resuscitation or first-aid training *will* respond.

But do you know how to access these services? If you don't, you are negligent. Learn the emergency response number. Know your evacuation route. Make *certain* that everyone who reports to you knows emergency procedures – you depend on them!

"What can I do?"

Keep abreast of current safety and emergency response measures for your site and the Alberta Research Council. Make certain you can rely on your colleagues. Make certain your colleagues can rely on you. Most of all, ensure that you can rely on yourself.

The Early Years in Chem_ _



Good morning, Guy – did I hear a hydrogen bark??

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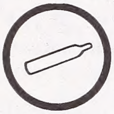
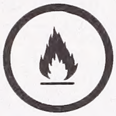
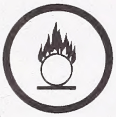
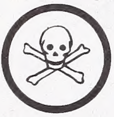
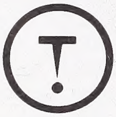
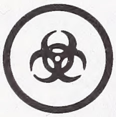
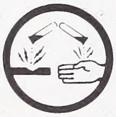
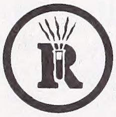
Hazard symbols and classes

The symbol represents . . .	It means that the material . . .	And that you should . . .
 **Class A – Compressed gas**	☐ poses an explosion danger because the gas is being held in a cylinder under pressure ☐ may cause its container to explode if heated in a fire ☐ may cause its container to explode if dropped	☐ handle with care, do not drop cylinder ☐ keep cylinder away from potential sources of ignition ☐ store the containers in the area designated by your supervisor
 **Class B – Combustible and flammable material**	☐ is one that will burn and is therefore a potential fire hazard ☐ may burn at relatively low temperatures; flammable materials catch fire at lower temperatures than combustible materials ☐ may burst into flame spontaneously in air or release a flammable gas on contact with water ☐ may cause a fire when exposed to heat, sparks, or flames or as a result of friction	☐ keep the material away from heat sources and other combustible materials ☐ never smoke when working with or near the material ☐ store the material in a cool, fire-proof area, as designated by your supervisor
 **Class C – Oxidizing material**	☐ poses a fire and/or explosion risk in the presence of flammable or combustible material ☐ may cause fire when it comes into contact with combustible materials such as wood ☐ may react violently or cause an explosion when it comes into contact with combustible materials such as fuels ☐ may burn skin and eyes upon contact	☐ keep the material away from combustible materials and store in the areas designated by your supervisor ☐ keep the material away from sources of ignition ☐ never smoke when working near the material ☐ wear the proper protective equipment, including eye, face and hand protection and protective clothing
 **Class D, Division 1 – Poisonous and infectious material: immediate and serious toxic effects**	☐ is a potentially fatal poisonous substance ☐ may be fatal or cause permanent damage if it is inhaled or swallowed or if it enters the body through skin contact ☐ may burn eyes or skin upon contact	☐ handle the material with extreme caution ☐ avoid contact with the skin or eyes by wearing the proper protective equipment, including eye, face and hand protection and protective clothing ☐ avoid inhaling by working in well-ventilated areas and/or wearing respiratory equipment ☐ wash and shower thoroughly after using ☐ store the material in designated areas only
 **Class D, Division 2 – Poisonous and infectious material: other toxic effects**	☐ is a poisonous substance that is not immediately dangerous to health ☐ may cause death or permanent damage as a result of repeated exposures over time ☐ may be a skin or eye irritant ☐ may be a sensitizer, which produces a chemical allergy ☐ may cause cancer ☐ may cause birth defects or sterility	☐ avoid skin and eye contact by wearing all protective equipment necessary, including eye, face, and hand protection and protective clothing ☐ avoid inhaling by working in well-ventilated areas and/or wearing respiratory equipment as designated by your supervisor ☐ store the material in designated places only
 **Class D, Division 3 – Poisonous and infectious material: biohazardous infectious material**	☐ may cause a serious disease resulting in illness or death	☐ take every measure to avoid contamination ☐ handle the material only when fully protected by the proper, designated equipment ☐ handle the material in designated areas where engineering controls are in place to prevent exposure
 **Class E – Corrosive material**	☐ causes severe eye and skin irritation upon contact ☐ causes severe tissue damage with prolonged contact ☐ may be harmful if inhaled	☐ keep containers tightly closed ☐ avoid skin and eye contact by wearing all necessary protective equipment, including eye, face and hand protection and protective clothing ☐ avoid inhaling by using in well-ventilated areas only and/or wearing the proper respiratory equipment, as designated by your supervisor
 **Class F – Dangerously reactive material**	☐ is very unstable ☐ may react with water to release a toxic or flammable gas ☐ may explode as a result of shock, friction or increase in temperature ☐ may explode if heated when in a closed container ☐ undergoes vigorous polymerization	☐ keep material away from heat ☐ open containers carefully; do not drop them ☐ store the material in a cool, flame-proof area, as designated by your supervisor

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